

## CLAIMS

What is claimed is:

- 1 1. A system for identifying a presence of a creature disposed in water comprising:  
2 a transducer for receiving at least one vibrational wave and generating at least  
3 one transformed signal responsive to said vibrational wave; and  
4 a signal processor for processing said transformed signal to indicate a presence  
5 of a particular type of creature which is disposed in water.
- 1 2. The system of claim 1, wherein said system is included with at least one object  
2 selected from the group consisting of a buoy, a mooring, an underwater structure and a  
3 watercraft.
- 1 3. The system of claim 1, further comprising an indicator which communicates at  
2 least one warning signal responsive to a detection of said creature.
- 1 4. The system of claim 3, wherein said indicator is selected from the group  
2 consisting of a visual indicator, an audio transducer, and a mechanical vibration device.
- 1 5. The system of claim 3, wherein said indicator is a mechanical device operatively  
2 connected to a control system of a watercraft.
- 1 6. The system of claim 1, wherein said signal processor comprises at least one  
2 counter, said counter measuring a number of creature detection occurrences.

1 7. The system of claim 1, wherein said signal processor comprises at least one  
2 counter, said counter measuring a number of false creature identification occurrences.

1 8. The system of claim 1, further comprising a snap rejection module, said snap  
2 rejection module rejecting vibrational waves having a duration less than a  
3 predetermined value.

1 9. The system of claim 1, wherein said vibrational wave comprises a sound created  
2 by at least one of a vocalization, a translational movement in water, a slapping of water,  
3 and a clicking.

1 10. The system of claim 1, wherein said signal processor detects a harmonic  
2 frequency content of said signal.

1 11. The system of claim 10, wherein said signal processor measures an amplitude of  
2 at least one harmonic frequency.

1 12. The system of claim 10, wherein said signal processor detects a maximum  
2 harmonic frequency.

1 13. A watercraft comprising:

2 a system for identifying a presence of a creature disposed in water, said system  
3 comprising:  
4 a transducer for receiving at least one vibrational wave and generating at  
5 least one transformed signal responsive to said vibrational wave; and  
6 a signal processor for processing said transformed signal to indicate a  
7 presence of a particular type of creature which is disposed in water.

1 14. A buoy comprising:

2 a system for identifying a presence of a creature disposed in water, said system  
3 comprising:  
4 a transducer for receiving at least one vibrational wave and generating at  
5 least one transformed signal responsive to said vibrational wave; and  
6 a signal processor for processing said transformed signal to indicate a  
7 presence of a particular type of creature which is disposed in water.

1 15. A method for identifying a presence of a creature disposed in water comprising  
2 the steps of:

3 receiving at least one vibrational wave and generating at least one transformed  
4 signal responsive to said vibrational wave; and  
5 processing said transformed signal to indicate a presence of a particular type of  
6 creature which is disposed in water.

1 16. The method according to claim 15, further comprising the step of communicating  
2 at least one warning signal responsive to a detection of the creature.

1 17. The method according to claim 16, wherein said step of communicating at least  
2 one warning signal comprises at least one step selected from the group consisting of  
3 providing a visual indicator, providing an audio signal, and providing a vibrational signal.

1 18. The method according to claim 15, further comprising the step of automatically  
2 controlling at least one operational parameter of a watercraft responsive to a detection  
3 of the creature.

1 19. The method according to claim 15, further comprising the step of measuring a  
2 number of creature detection occurrences.

1 20. The method according to claim 15, further comprising the step of measuring a  
2 number of false creature identification occurrences.

1 21. The method according to claim 15, wherein said processing step further  
2 comprises the step of rejecting signals associated with vibrational waves having a  
3 duration less than a predetermined value.

1 22. The method according to claim 15, wherein said receiving at least one vibrational  
2 wave step comprises receiving a sound created by at least one of a vocalization, a  
3 translational movement in water, a slapping of water, and a clicking.

1 23. The method according to claim 15, wherein said processing step further  
2 comprises the step of detecting a harmonic frequency content of the signal.

1 24. The method according to claim 15, wherein said processing step further  
2 comprises the step of measuring an amplitude of at least one harmonic frequency.

1 25. The method according to claim 15, wherein said processing step further  
2 comprises the step of detecting a maximum harmonic frequency.